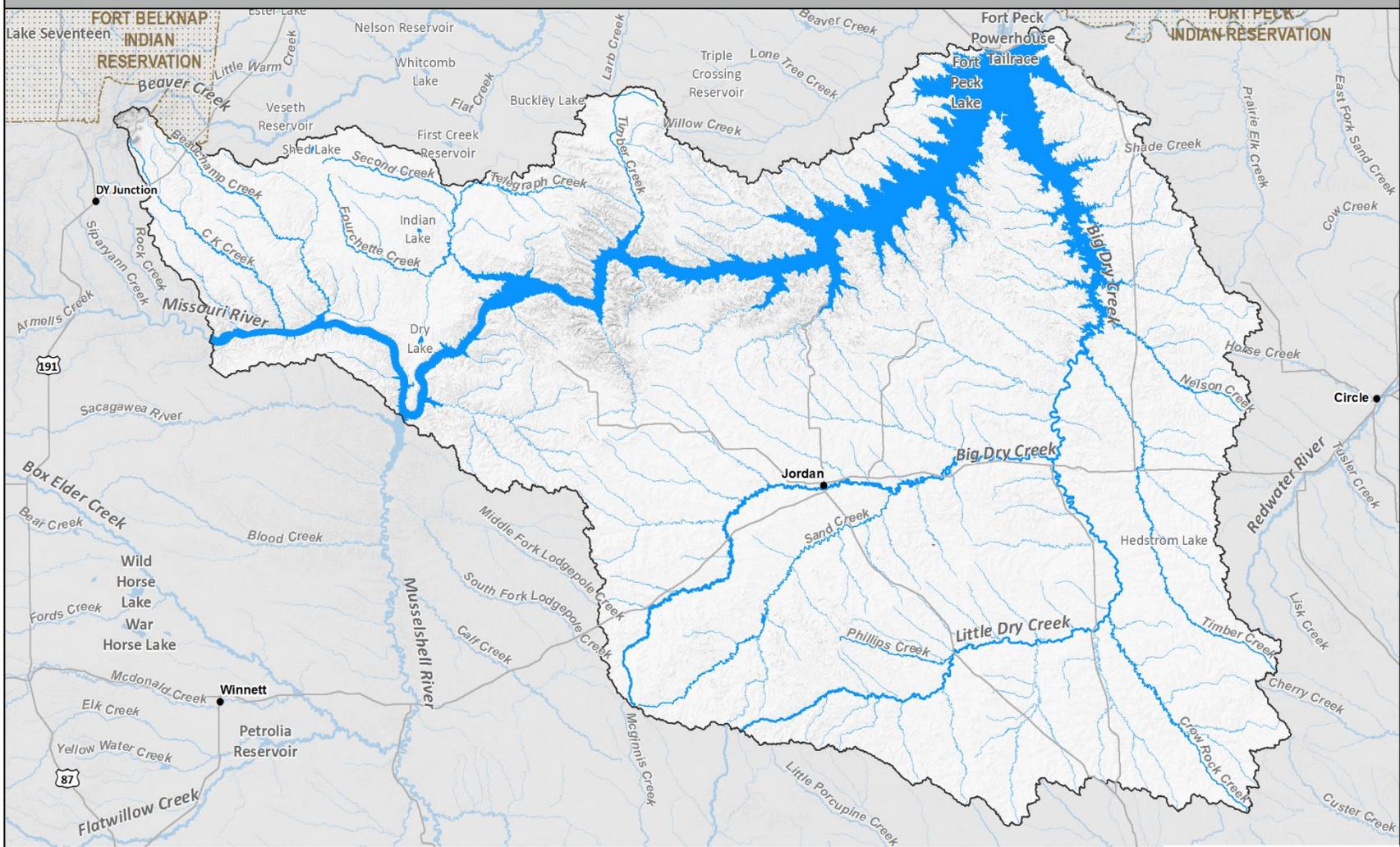


# Fort Peck Reservoir Drainage

# MONTANA FWP



-  Tribal Lands
-  Drainage Boundary



Map Produced by:  
ASP - Geographic Data Services  
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Administrative boundaries and FWP Lands data from Montana Fish, Wildlife & Parks, Helena, MT. Background Imagery from ESRI



## **Fort Peck Reservoir Drainage**

### **Physical Description**

Fort Peck Reservoir is formed by a large earth-filled dam on the Missouri River in the northeastern part of Montana. Completed in 1937, it is the largest body of water in the state, with 246,000 surface acres and 1,520 miles of shoreline at full pool. The reservoir is 134 miles long and has a maximum depth of 220 feet when full. Major tributaries to Fort Peck Reservoir include the Missouri River, Musselshell River, and Big Dry Creek. The Musselshell and Missouri rivers are discussed in their own drainage plans. The habitat at the mouths of these streams is closely tied to Fort Peck Reservoir levels; several stream miles are inundated at normal to high pool levels. This watershed encompasses a drainage basin of 57,500 square mile basin and is located within Phillips, Valley, Fergus, Petroleum, Garfield, and McCone counties. Administration of all land and water within the executive boundary of the Charles M. Russell (CMR) National Wildlife Refuge is shared by the U.S. Fish and Wildlife Service (USFWS) and the U.S. Army Corps of Engineers (USACOE) in accordance with a Memorandum of Agreement. The reservoir is operated by the USACOE to provide water for power, flood control, irrigation, navigation, and recreation.

### **Fisheries Management**

The fishery in Fort Peck Reservoir is diverse with 47 different fish species, most of which are native to the Missouri River. Sixteen species, mostly game fish, have been introduced by FWP to develop sport fishing opportunities. Walleye and northern pike were both introduced in 1951 followed by lake trout in the mid 1950's. Smallmouth bass were introduced in 1981 and chinook salmon in 1983. During the 1980's spottail shiners and cisco were introduced to supplement the existing forage base. Additionally, native game fish including burbot, channel catfish, paddlefish, and sauger are sought by anglers throughout the reservoir. Because of the diversity and world class fishery that Fort Peck Reservoir has to offer, it is ranked number one in the region in number of angler days, and consistently within the top ten on a statewide level.

The quality multispecies fishery found in the reservoir is the result of ongoing management efforts by FWP. Key to this effort is an understanding of the variable nature of fish populations. Specifically, natural reproduction is largely influenced by reservoir water levels and environmental conditions at time of spawn. As a result, extensive stocking programs for walleye and chinook salmon are in place to reduce population variability. These introductions are carefully monitored to determine the long-term benefits to the fishery. Evaluation of management success is done through annual standardized monitoring in tandem with angler surveys. This basic monitoring program allows estimates of catch rates, size of fish, and overall angler satisfaction.

### **Habitat**

Reservoir water level management is the primary variable shaping the habitat of the Fort Peck Reservoir fishery. Wet and dry cycles can be prolonged with several noted droughts occurring since dam construction. Drought periods persisted during the late 1980s and early 1990s followed by another period from 2000 through 2008. These periods resulted in substantial reservoir drawdowns and in some

cases, persisted for several years. Drought periods have been shown to negatively affect the fishery and recreational use of the reservoir.

The most recent wet cycle began in 2008 and continued through 2020. Water levels increased 22 feet in 2008 from the record low of 2196 mean sea level (msl) in 2007 to 2218 msl in 2008. Reservoir water levels continued to increase in 2009 (10 feet) and 2010 (21 feet). These four water years played a significant role in shaping the current fishery and will continue for several years into the future. The mobilization of nutrients that occurred with the inundation of vast areas of shoreline and the resultant trophic upsurge led to several strong year classes of walleye including 2011 which remains a dominant year class 11 years later. In addition, the forage base has remained above average for much of this period leading to favorable growth of sportfish.

Reservoir levels have been declining since 2019 ending the 2022 water year nearly 30 feet below full pool. Declining water levels often result in a decrease in reservoir productivity. Aquatic plants and associated benthos are reduced or eliminated, littoral fish species production is negatively affected and can lead to severe declines in forage as predator and prey are forced into habitats that favor predators. Fish growth and survival declines in response to decreasing reservoir productivity. The effects of prolonged reservoir drawdowns on colonization of Eurasian Watermilfoil (EWM) are unknown. Anecdotal observation suggests EWM may benefit from rising water levels which may provide additional nutrients and substrate for expansion.

Reservoir operations that prioritize irrigation, navigation and hydropower will result in decreasing reservoir pool elevations during drought periods. The USACOE conducts bi-annual scoping meetings that detail proposed operations of the mainstem Missouri River system. FWP provides comments relative to Fort Peck Reservoir and Missouri River operations at this forum. In addition, operational requests can be coordinated with other Missouri River states through the Missouri River Natural Resource Committee.

## **Special Management Issues**

### ***Fort Peck Reservoir Fisheries Management Plan***

The [2023-2032 Fort Peck Reservoir Fisheries Management Plan](#) was completed in the spring of 2023. The goal of the plan is to emphasize the walleye fishery utilizing walleye production from Montana warm water hatcheries while maintaining and enhancing the multispecies fishery that includes northern pike, smallmouth bass, chinook salmon and lake trout. Success of the sport fishery relies on a sustainable forage base including pelagic and shoreline forage species.

This plan represents the on going evolution of fisheries management on Fort Peck Reservoir. The principal importance is to develop and implement scientifically sound sampling programs for species other than walleye and northern pike. Both species have well established and scientifically valid sampling programs. Additional monitoring has been implemented during the previous plan that has provided insight on smallmouth bass, lake trout, and chinook salmon populations. However, better insight into the population dynamics of these species is needed. Furthermore, other species such as burbot will require additional monitoring to understand limiting factors. Data collected on these popular sportfish will be used to make management decisions to improve the Fort Peck Reservoir fishery.

Fisheries goals and management criteria for Fort Peck Reservoir are fully described in the Fort Peck Reservoir Fisheries Management Plan on the [FWP website](#).

**FISHERIES MANAGEMENT DIRECTION FOR FORT PECK RESERVOIR DISTRICT**

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Fort Peck Reservoir (Headwaters downstream to Fort Peck Dam)	246,000 acres	Walleye	Hatchery/ Wild	General	Continue to place primary management emphasis on walleye. Adhere to stocking guidelines of the <a href="#">Fort Peck Reservoir Fisheries Management Plan</a> . Investigate hatchery walleye fry and wild produced walleye contribution to the fishery.
		Northern pike, Smallmouth bass	Wild	General	Continue to monitor populations. Rely on variable natural reproduction/survival to determine population levels. Investigate survey techniques that may provide better insight of smallmouth bass population dynamics.
		Lake trout	Wild	General	Rely on variable natural reproduction and survival to determine population abundance. Evaluate stocking lake trout if conditions warrant. Monitor populations through annual surveys. Investigate angler related catch and release mortality.
		Chinook salmon	Hatchery	Put- Grow- and- Take	Adhere to stocking guidelines of the <a href="#">Fort Peck Reservoir Fisheries Management Plan</a> . Monitor populations through annual surveys.
		Burbot (N)	Wild	General	Continue to monitor populations and investigate sampling methods to better understand factors limiting recruitment.
		Channel catfish (N), Sauger (N)	Wild	General, Restrictive Regulations	Continue to monitor populations. Better understand factors for limited recruitment.

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Big Dry Creek, Little Dry Creek	149 miles 69 miles	Channel catfish (N)  Multi-species	Wild  Wild	General  General/Conservation	Continue to monitor populations.  Manage for recreational fishing opportunity where applicable. Monitor nongame fish species for native fish assemblage and overall ecosystem health.
Warmwater Reservoirs and ponds north of Reservoir in FWP Region 6 Pond Program	Numerous	Largemouth bass, Northern pike, Walleye, Smallmouth bass, Channel catfish (N), Black crappie, Yellow perch, Bluegill	Wild/ Hatchery	General/ Put- Grow- and- Take	Manage as self-sustaining fisheries. Supplement populations with hatchery stocking and wild fish transfers as needed. Monitor water conditions and impacts from winterkill.
Habitat needs and activities: Work with Bureau of Land Management and landowners to increase riparian habitats and aesthetic landscapes surrounding the ponds. Maintain windmill aeration systems on ponds with marginal depths. Continue to collect distribution data on northern redbelly dace and chrosomid dace populations. Evaluate non-native fish stocking and commercial minnow collection to ensure dace populations are not impacted by these actions.					
Private ponds/reservoirs south of Reservoir in FWP Region 7 Pond Program	Numerous	Trout  Bass, Walleye, Northern pike  Crappie, Yellow perch, Bluegill	Hatchery  Wild/ Hatchery  Wild/ Transfer	Put and Take  General/ Put- Grow- and- Take  General	Public relations opportunity with landowners to provide local fishing opportunity for rural community. Maintain fishery through regulations and annual stocking.  Public relations opportunity with landowners to provide local fishing opportunity for rural community. Maintain fishery through regulations and stocking when necessary.  Public relations opportunity with landowners to provide local fishing opportunity for rural community. Provide panfish angling opportunity, supplement population through wild fish transfers when necessary.

